

Inspection & Testing Committee
DSA Advisory Board
Minutes of Meeting
June 29, 2006

Division of the State Architect
1102 Q Street, Suite 5100
Sacramento, California

Committee Members Present

Dennis Shallenberger, Chair
Paul Beyl, Jr.
Bob Dyson
Tony Elmo
Stephanie Gonos
Kennith Hall
David Karina
Jim Ward

DSA Staff Present

John Baca
Richard Conrad
Jeff Enzler
Eric France
Liz Schroeder

Others Present

Dave Ackerman, Wallace School
Dan Cherrier, Kleinfelder
William Chu, Converse Consultants
Cliff Craig, DCI
Fred Edmondson, Kleinfelder
Dave Palfini
Michelle Pettit, PC Associates
David Redford, WKA
Frank Sand, Teaminspection
Dean Stanphill, Converse Consultants
Karlton Windherst, WKA

Board Members Participating

Pete Peterson (via teleconference)

Call to Order/Introductions

Committee Chair Dennis Shallenberger called the meeting to order at 10:07 a.m. and welcomed everyone. Participants took turns introducing themselves.

Mr. Shallenberger advised that DSA Advisory Board Member Pete Peterson expected to join the meeting via teleconference.

Statistics from Latest Inspector Exams (Out of Order)

Mr. John Baca reported that in response to concerns about recent inspector exam pass rates, the staff began researching results for various types of exam questions.

Mr. Shallenberger welcomed Mr. Peterson to the meeting. He proposed taking Mr. Peterson's item next to accommodate his schedule.

Mr. Baca drew attention to a compilation of statistics from the December 2005, March 2006 and June 2006 results. He said typical pass rates on prior exams had ranged between 17 and 24 percent, and recent scores have improved dramatically. Mr. Baca advised that there have been instances of inappropriate materials and "cheat sheets" being brought to exams, and some complaints about organized efforts. He recommended raising the bar and requiring a higher passing score on specific sections.

1 Mr. Baca said someone sent DSA a copy of a Class 3 exam that had been circulating. He
2 noted there are reports that certain classes “teach to the exam” rather than ensure mastery
3 of the material.

4
5 Mr. Jim Ward asked if DSA analyzed the effect of raising passing scores to 70 percent. Mr.
6 Baca replied that the staff looked at this after the June exam.

7
8 Mr. Dave Karina indicated there was an online publication called “Guide to the DSA Exam”
9 published by inspectors, and people can pay to receive a pass code allowing them to take
10 practice exams.

11
12 Mr. Paul Beyl observed that the problem seems to lie with the Class 3 and Class 2 exams
13 rather than the Class 1 exam. He asked Mr. Baca to describe the exam sections for these
14 classes. Mr. Baca stated that there are three sections in plan reading and four sections on
15 code, and a 60 percent score on each is passing.

16
17 Mr. Ward asked if DSA had analyzed differences between first-time exam takers and
18 repeaters. Mr. Baca said DSA had that information.

19
20 Mr. Shallenberger commented that DSA may need to turn its emphasis from protecting the
21 test material to promoting and encouraging learning. He said applicants should be able to
22 see exam questions in advance, and passing scores should be raised to 70 percent.

23
24 Mr. Karina said the state does not currently have a shortage of inspectors, and there are
25 Class 1 and 2 inspectors in southern California who cannot find work. He recommended
26 raising the bar to improve the quality of approved inspectors. He cautioned that the State
27 of California could be accepting future liability for items that were certified or approved
28 based on information from these inspectors.

29
30 Mr. Dan Cherrier asked how many versions of each exam DSA has. Mr. Baca responded
31 that there are at least four exams for each level for each set of plans. He estimated there
32 were about 200 questions for each classification. Mr. Jeff Enzler said plan-reading is the
33 most difficult portion of the test for most applicants.

34
35 Mr. Hall suggested working with Butte College to generate more exam questions. He also
36 recommended taking inspectors to the field and testing them in inspection activities.

37
38 Mr. Ward said he would be interested in knowing how many of the people who passed the
39 exam were certified.

40
41 Mr. Peterson agreed with Mr. Karina’s assessment that there was no shortage of
42 inspectors, and he questioned the need for more.

43
44 Mr. Ward proposed taking some certified inspectors and testing them on the same
45 questions under the same conditions as exam takers.

46
47 Mr. William Chu recommended developing more exam questions.

48
49 Mr. Cliff Craig said the International Code Council (ICC) faces the same issues and has

1 experience developing exam questions. He urged DSA to take advantage of that resource.

2
3 **Mr. Beyl made a motion, seconded by Mr. Bob Dyson, that the committee review the**
4 **issue of raising the bar for the examinations, consider instituting a practical exam,**
5 **and perhaps an oral exam for Class 1.**

6
7 Mr. Hall questioned whether a motion was necessary to recommend that DSA take action.
8 Mr. Baca stated that a motion passed by the committee carries more weight.

9
10 Mr. Hall proposed a friendly amendment, that the committee recommend to DSA to
11 evaluate raising the bar and instituting a practical exam. Mr. Shallenberger clarified that
12 the committee should recommend to the Board, and the Board recommends to DSA.
13 Mr. Beyl agreed to amend the motion to say the committee recommends that the Board
14 recommend those actions to DSA.

15
16 **The motion was carried unanimously.**

17
18 Mr. Shallenberger proposed that Mr. Baca continue with his presentations.

19
20 **Reduction of Required Experience Time**

21 Mr. Baca said a new deputy noticed that DSA gives district structural engineers (DSE's)
22 authority to reduce the required experience time of 36 months in half if the DSE considers it
23 appropriate. He welcomed the committee's input as to whether that practice should be
24 continued.

25
26 Mr. Enzler explained that 36 months of experience in that type of construction is one of two
27 criteria for a Class 2 exam; the other is Class 3 certification. He noted some Class 3
28 inspectors find it difficult to gain experience on Class 2 projects, and their work in Class 3
29 provides valuable and relevant experience; in cases like that, a reduction of the normal
30 experience time might be warranted. He recognized that this flexibility entails an element
31 of subjectivity.

32
33 Mr. Hall commented that a practical exam would eliminate subjectivity and provide a better
34 test of an individual's abilities.

35
36 Mr. Shallenberger pointed out that developing a practical exam might be a good idea for
37 the future, but it would entail a major effort to develop one. He suggested focusing on
38 improving the existing exams. He added that practical exams often entail subjective
39 evaluations.

40
41 Mr. Shallenberger added that waiving the normal experience requirement should not be a
42 decision made by a single DSE.

43
44 The committee talked about whether Class 3 inspectors should be allowed to test for Class
45 1 without a 36-month waiting period.

46
47 Mr. Dyson described the testing and licensing process for professional engineers. He
48 advocated not shortening the waiting period. He proposed having a 36-month qualifying
49 position for each class.

1 Mr. Baca noted a future agenda item deals with multiple use of an applicant's experience
2 record. He clarified the DSA requires that an applicant's experience record for inspection
3 be at one class lower than the class for which the applicant is applying, but the experience
4 in construction has to be in the same class.

5
6 Mr. Beyl expressed his opinion that Class 3 inspectors should have to work under Class 1
7 inspectors to gain Class 2 experience. Committee members noted there are instances
8 when Class 3 inspectors are doing work on Class 1 and Class 2 projects.

9
10 After some discussion, the committee agreed that the practice of reducing the experience
11 time should not be continued.

12
13 **Mr. Hall made a motion, seconded by Mr. Ward, to recommend that the Board**
14 **recommend to DSA that the practice of reducing experience time be discontinued.**
15 **The motion was carried unanimously.**

16
17 **Restrictions on Class 1 Testing**

18 Mr. Baca reviewed a chart showing qualifying experience for Class 1 inspectors. He said
19 every applicant must have at least 12 months of construction experience, plus experience
20 on a school project. He recommended inserting "licensed" under the "Architect or
21 Engineer" and "General Superintendent" columns. He welcomed feedback from the
22 committee.

23
24 Mr. Shallenberger noted architects and engineers are supposed to be licensed to practice
25 in California.

26
27 Mr. Hall asked what changes DSA staff was recommending. Mr. Baca proposed requiring
28 that applicants have at least 12 months of construction or inspection experience to take the
29 Class 1 exam.

30
31 Mr. Dyson questioned whether mechanical, civil, or electrical engineers would have
32 sufficient overall experience to qualify as Class 1 inspectors. He said he had no problem
33 allowing general superintendents and licensed architects to take the exam, but
34 recommended limiting engineers only to structural engineers with inspection or general
35 contracting experience.

36
37 Mr. Shallenberger said he favored allowing civil engineers that do structural engineering
38 rather than limiting the category to structural engineers. He suggested recognizing and
39 giving some credit for individuals who are registered as architects or engineers.

40
41 Mr. Beyl proposed allowing other kinds of engineers. Mr. Shallenberger recommended
42 specifying "registered architect or engineer" with experience in construction or inspection.

43
44 Mr. Ward commented that the definition of "general superintendent" is subjective. He
45 expressed support for requiring all applicants to have experience with DSA work.

46
47 Mr. Enzler said he would like to see at least one year of project inspector experience, at
48 least at a Class 2 level, for all Class 1 candidates.

1 Mr. Shallenberger requested that the staff revise the chart to make some categories more
2 restrictive. He proposed that the committee discuss this topic again at a future meeting.

3
4 **Multiple Use of Experience Record**

5 Mr. Shallenberger noted that this topic had been addressed as part of the earlier
6 discussion.

7
8 **Solicitation of New Masonry Exam Questions**

9 Mr. Shallenberger said masonry inspectors with whom he talked recommend that DSA add
10 exam questions about masonry veneer.

11
12 Mr. Shallenberger proposed taking a short break, and then addressing Mr. Peterson's topic
13 before lunch.

14
15 A brief recess was taken.

16
17 **Minutes of Previous Meetings/Follow-Up Items**

18 Mr. Shallenberger said the minutes of the committee's March meeting were reviewed and
19 approved at the last Board meeting.

20
21 Mr. Shallenberger noted there are three ongoing follow-up items. Mr.ENZLER said the staff
22 is still working on a proposed project inspector disciplinary process and electronic field
23 review. He reported that IR A-8 has been published.

24
25 Mr. Shallenberger noted Mr. France would be giving a presentation on the Laboratory
26 Evaluation and Acceptance (LEA) process as part of the next agenda item.

27
28 Mr. Shallenberger asked about the status of elevator inspection and inspection of products
29 manufactured out of state. Mr.ENZLER said DSA is working on this issue.

30
31 Mr. Shallenberger proposed removing IR A-8 from the follow-up list and continuing the
32 remaining items.

33
34 **New Business (Out of Order)**
35 **Inspection of Access Signage**

36 Mr. Peterson reported that the Access Committee held six days of meetings in May to
37 review proposed amendments to the new building code. He said one part of the
38 accessibility code pertains to signs and identification, and inspectors are supposed to have
39 some general awareness of access rights and signage types and locations. He read code
40 excerpts describing the points to be inspected and the extent of the inspections required.
41 He added that the requirements will apply to schools and other state-funded buildings. Mr.
42 Peterson encouraged the committee to look into this issue.

43
44 Mr. Shallenberger thanked Mr. Peterson for bringing this issue to the committee's attention.

45
46 Mr. Elmo expressed support for the idea of developing a program coordinated with plan
47 check, field inspection, and training to address the complexity of accessibility inspection
48 requirements for signs and other items.

1 Mr. Shallenberger noted this issue should be brought up at the next Board meeting.

2
3 Mr. Beyl observed that nearly all inspectors are inspecting general signage now. He said
4 verifying what Braille signs mean would be difficult for inspectors. Mr. Peterson
5 commented that it would be easier for DSA or sign manufacturers to conduct and certify
6 these kinds of inspections. Mr. Shallenberger agreed.

7
8 Mr. Peterson said the Access Committee has concerns that architects are not including
9 proper details on drawings and that inspectors are not performing adequate access
10 compliance inspections.

11
12 Mr. Shallenberger proposed alerting the DSA Advisory Board and DSA that the new code
13 may bring new access signage inspection requirements.

14
15 Mr. Hall recommended taking a position that it is not appropriate for DSA inspectors or local
16 building inspectors to have to read Braille; he proposed shifting the onus back to the
17 manufacturer and for DSA to develop some kind of certification or approval process. Mr.
18 Shallenberger agreed.

19
20 Mr. Elmo urged DSA to provide more resources and references to assist inspectors.

21
22 Mr. Dyson expressed support for these suggestions. He suggested asking the State
23 Architect to amend the code to provide certification by manufacturers.

24
25 Mr. Shallenberger asked about the extent of DSA's access plan check review. Mr. Enzler
26 said DSA inspects access and type and placement of signs. He noted local building
27 inspectors are responsible for inspecting non-DSA buildings for access compliance.

28
29 **Mr. Ward made a motion, seconded by Mr. Dyson, to recommend that the Board**
30 **recommend that DSA amend the code to provide for certification of Braille access**
31 **signs by manufacturers rather than inspectors.**

32
33 Mr. Cherrier said state agencies already submitted their code packages to the Building
34 Standards Commission, so DSA may not have the ability to propose additional changes.

35
36 Mr. Richard Conrad advised that access provisions were submitted separately from the
37 International Building Code amendments. He said further revisions can be proposed to the
38 Building Standards Commission's Code Advisory Committee.

39
40 Mr. Dyson observed that it was too late to revise DSA's package.

41
42 Mr. Shallenberger recommended that DSA propose a revision to the Code Advisory
43 Committee.

44
45 At 12:15 p.m., the meeting was recessed for lunch. Mr. Shallenberger reconvened the
46 meeting at 1:10 p.m.

47
48 Mr. Shallenberger said the committee was considering a motion recommending that DSA
49 revisit the issue and consider having Braille signage certifications be done by

1 manufacturers.

2
3 **The motion was carried unanimously.**

4
5 Mr. Shallenberger expressed appreciation to Mr. Peterson for bringing this issue to the
6 committee's attention.

7
8 Mr. France stated that the inspection requirements pertaining to Braille signs address
9 height, shape, and dot spacing, but not what signs say.

10
11 Mr. Shallenberger questioned whether inspectors in the field should have to inspect for dot
12 spacing; he noted it would be easier for DSA or manufacturers to handle that.

13
14 Mr. France advised that there are Braille templates available to determine compliance with
15 applicable code requirements. He said the Legislature determined that current tactile
16 signage requirements in the building code are not working, and DSA was directed to
17 develop regulations to ensure that tactile signage complies with the code when it is
18 installed.

19
20 Mr. Dyson clarified that the committee's concern was that the code language did not
21 differentiate between the specific items to be inspected.

22
23 Committee members agreed the motion recommending that DSA revisit the issue was still
24 appropriate.

25
26 **Laboratory Evaluation and Acceptance (LEA) Process - IR 17-1**

27 Mr. Eric France distributed copies of a proposed revised version of IR 17-1 and a table of
28 contents for the new LEA Program Procedure Manual. He said the manual describes and
29 explains DSA's internal processes and processes used by stakeholders to obtain
30 acceptance from DSA. Mr. France noted the revised IR 17-1 refers to the manual.

31
32 Mr. France reviewed and discussed the manual's table of contents.

33
34 Mr. Shallenberger expressed support for the program. Mr. France said the staff plans to
35 complete the LEA manual by September.

36
37 Mr. Beyl observed that the first paragraph of IR 17-1 refers to "plan review and construction
38 inspection of projects," and most of the following text refers to testing and inspection
39 laboratories. He questioned why testing and inspection labs were not mentioned in the first
40 paragraph. Mr. France explained that the top paragraph in small print is a standard clause
41 for all IR's. He agreed that testing and inspection labs should be included.

42
43 Mr. Shallenberger noted the committee talked previously about the issue of special
44 inspectors in testing labs. He recommended that DSA decide whether inspectors will be
45 required to work under labs or not. He said whatever criteria DSA imposes on labs should
46 also be imposed on independent inspectors, or they should be brought in under labs.

47
48 Mr. Beyl said having all inspectors work under the supervision of a laboratory would be the
49 easiest and most effective way.

1 Mr. Shallenberger observed that DSA needs to make a decision to clarify this issue.

2
3 Mr. Chu agreed, and he recommended that DSA work with labs to develop a separate
4 program for special inspections.

5
6 Mr. France reviewed code requirements pertaining to special inspections. He noted special
7 inspectors have different qualifications than testing labs, and special inspections are
8 conducted differently than lab tests. Committee members discussed the advantages and
9 disadvantages of having inspectors work through labs.

10
11 Mr. Craig expressed an interest in working with the staff to develop appropriate programs
12 and regulations for the industry.

13
14 Mr. Cherrier noted that IR 17-1 is viewed as “quasi code,” and its link to the LEA manual
15 gives DSA even more control. Mr. Shallenberger said he views IR 17-1 as setting minimum
16 criteria for daily business. Mr. France confirmed that understanding. He added that DSA is
17 not imposing anything stricter than the current ASTM 329 standard.

18
19 Mr. France offered to email completed sections of the LEA manual to committee members
20 as they become available.

21
22 Mr. Fred Edmondson said he would like to see a visual welding inspection section apart
23 from the lab evaluation and acceptance criteria. Mr. Shallenberger pointed out that the
24 code requires this kind of special inspection to be done through labs, but DSA has not
25 enforced the provisions.

26
27 After some discussion, Mr. Shallenberger asked if the committee wanted to recommend
28 that DSA make a decision as to whether inspection should be part of labs or not.

29
30 Mr. Dyson advocated not restricting independent special inspectors by requiring them to
31 work through labs. He said as long as individuals have the necessary skills and abilities,
32 they should be allowed to perform inspections.

33
34 **Mr. Dyson made a motion, seconded by Mr. Hall, to recommend that special**
35 **inspectors not be required to work through testing laboratories, and that DSA**
36 **develop separate IR's, regulations, and guidelines for special inspectors.**

37
38 After some discussion, Mr. Dyson withdrew his motion.

39
40 Mr. Shallenberger suggested recommending that DSA consider either separating special
41 inspections from testing laboratories or requiring them to be together.

42
43 **Mr. Beyl made a motion, seconded by Mr. Karina, to recommend that the Board**
44 **recommend that DSA make a decision on this issue.**

45
46 Mr. Craig pointed out that DSA has allowed many independent masonry inspectors and
47 other special inspectors who work apart from labs, and there have not been enforcement
48 problems.

1 **The motion was carried unanimously.**

2
3 Mr. France said the staff can revise the LEA Manual and develop a separate section for
4 special inspection if necessary.

5
6 **Nondestructive Testing (NDT) of Welds - DSA Circular 17-2**

7 Mr. France drew attention to Draft 4 of DSA Circular 17-2, regarding nondestructive testing
8 of welds. He said the circular was disseminated to subject-matter experts statewide for
9 their comments, and some of their feedback will be incorporated in the next version.

10
11 Mr. Edmondson talked about applicable standards and weld testing requirements.

12
13 Mr. France stated that DSA has seen problems with nondestructive testing of welds in
14 some school buildings. He expressed support for requiring ASNT certification for Level III.

15
16 Participants talked about the enforceability of the provisions.

17
18 Mr. Shallenberger encouraged people to submit comments to the staff. He welcomed
19 ideas for alternate ways of ensuring high standards without being unnecessarily restrictive.

20
21 **Future Circular Development**

22 Mr. France reviewed and discussed a list of proposed subjects for new DSA circulars. He
23 said circulars will be posted on the Web page. He welcomed feedback on the first few
24 topics.

25
26 One participant said he thought the committee passed a motion that the LEA lab would not
27 be required to do side-by-side inspection, and that the responsible geotechnical engineer of
28 record would do testing. Mr. Shallenberger noted this topic had been discussed, and
29 geotechnical engineers prefer to perform the inspections themselves. He expressed his
30 opinion that earthwork inspection and testing should be left to the geotechnical engineer of
31 record. Mr. Shallenberger offered to work with the staff to develop appropriate wording for
32 the earthwork inspection circular.

33
34 Mr. France welcomed comments on which topics on the list should be high priorities.
35 Mr. Karina identified batch plant inspection, reinforcing steel, and welding inspection.

36
37 Committee members noted initial curing should have a lower priority.

38
39 **Meeting Summary/Next Steps**

40 Mr. Shallenberger observed that the committee has been acting in a truly advisory capacity,
41 providing considerable input to DSA staff. He said he would report on the motions passed
42 by the committee at the July 20 DSA Advisory Board meeting in San Diego.

43
44 **Public Comments**

45 Mr. Karina commended the DSA engineering staff for the new testing laboratories addition
46 to the DSA Website. He said this feature is a great tool for inspectors in the field, providing
47 access to verified report forms and templates for reports.

48
49 Mr. Karina complimented the DSA Academy organizers for the recent session in Ontario.

1 He thanked Ms. Deborah Furlow and the staff.

2
3 Mr. Shallenberger noted that DSA opted not to adopt the committee's proposed language
4 for the report forms. Participants talked about possible future revisions.

5
6 Mr. Shallenberger asked if the committee wanted to revisit the issue. He noted it might be
7 better for an industry group or professional organization to approach DSA and ask them to
8 reconsider.

9
10 Committee members decided to establish a task force to work on this issue. Mr.
11 Shallenberger and Mr. Beyl volunteered to serve. Mr. Craig, Mr. Cherrier, Mr. Dave
12 Ackerman, and Mr. Dean Stamphill offered to participate. Mr. Shallenberger agreed to
13 chair the group. He asked Mr. France to provide staff support.

14
15 Mr.ENZler suggested teleconferencing as a meeting option. Mr. Shallenberger asked Ms.
16 Liz Schroeder to arrange a teleconference meeting.

17 18 **Schedule Next Meeting**

19 Committee members agreed to hold a teleconference meeting on Wednesday, July 12,
20 2006, at 9:00 a.m.

21
22 They decided to schedule the next meeting after the DSA Advisory Board meeting.

23 24 **New Business**

25 There were no items of new business brought to the committee's attention.

26 27 **Adjournment**

28 Mr. Shallenberger thanked all participants for attending. There being no further business,
29 Mr. Elmo made a motion, seconded by Mr. Ward, to adjourn. The motion was carried
30 unanimously, and the Inspection & Testing Committee meeting was adjourned at 3:00 p.m.

31 32 **Motions**

33 **Mr. Beyl made a motion, seconded by Mr. Bob Dyson, that the committee review the**
34 **issue of raising the bar for the examinations, consider instituting a practical exam,**
35 **and perhaps having an oral exam for Class 1.** Mr. Hall proposed a friendly amendment,
36 that the committee recommend to DSA to evaluate raising the bar and instituting a practical
37 exam. Mr. Shallenberger clarified that the committee should recommend to the Board, and
38 the Board recommends to DSA. Mr. Beyl agreed to amend the motion to say the
39 committee recommends that the Board recommend those actions to DSA. **The motion**
40 **was carried unanimously.** (pg 3)

41
42 **Mr. Hall made a motion, seconded by Mr. Ward, to recommend that the Board**
43 **recommend to DSA that the practice of reducing experience time be discontinued.**
44 **The motion was carried unanimously.** (pg 4)

45
46 **Mr. Ward made a motion, seconded by Mr. Dyson, to recommend that the Board**
47 **recommend that DSA amend the code to provide for certification of Braille access**
48 **signs by manufacturers rather than inspectors. The motion was carried**
49 **unanimously.** (pg 6)

1 **Mr. Beyl made a motion, seconded by Mr. Karina, to recommend that the Board**
2 **recommend that DSA make a decision on this issue. The motion was carried**
3 **unanimously. (pg 8)**
4

5
6 **Follow-Up Items**

7 Mr. Shallenberger requested that the staff revise the chart to make some categories more
8 restrictive. He proposed that the committee discuss this topic again at a future meeting.
9 (pg 4)
10

11 Mr.ENZler said the staff is still working on a proposed project inspector disciplinary process
12 and electronic field review. (pg 5)
13

14 Mr. Shallenberger asked about the status of elevator inspection and inspection of products
15 manufactured out of state. Mr.ENZler said DSA is working on this issue. (pg 5)